



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2014-0282; Directorate Identifier 2012-NM-168-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede airworthiness directive (AD) 2006-0707, for certain A300 B4-600, B4-600R, and F4-600R series airplanes, and Model C4-605R variant F airplanes (collectively called A300-600 series airplanes). AD 2006-0707 requires modifying nine bolt holes in the vertical flange of the center spar sealing angles. Since we issued AD 2006-0707, we have received reports that fatigue and damage tolerance analyses show that the inspection threshold and interval must be reduced to allow timely detection of cracks. This proposed AD would continue to require modification of bolt holes in the vertical flange of the center spar sealing angles, and any applicable related investigative and corrective actions. This proposed AD would also require inspections for cracks, a modification by cold expansion of the center spar sealing angles, replacement of both sealing angles and cold expansion of the attachment holes if necessary, and post-repair repetitive inspections and corrective actions if necessary. We are proposing this AD to prevent crack formation in the sealing angles, which could rupture the sealing angle and lead to subsequent crack formation in the bottom skin of the

wing, and result in reduced structural integrity of the center spar section of the wing.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Airbus SAS – EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0282; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-2125; fax (425) 227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0282; Directorate Identifier 2012-NM-168-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will

also post a report summarizing each substantive verbal contact we receive about this proposed AD.

## **Discussion**

On March 15, 2006, we issued AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006). A correction of that AD was published in the Federal Register on April 21, 2006 (71 FR 20530). That AD required actions intended to address an unsafe condition on certain Airbus Model A300-600 series airplanes.

Since we issued AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006), we have received a report that additional actions are needed to address the unsafe condition. In addition, airplanes have been added to applicability. The applicability of AD 2006-0707 excluded airplanes on which Airbus Modification 8609 was incorporated. We have determined that those airplanes must be inspected to address the unsafe condition. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2012-0194, dated September 25, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Fatigue testing applied to a test airframe confirmed the initiation of cracks on the sealing angles of the centre spar, adjacent to rib 8, which could lead to the rupture of the sealing angles and the subsequent crack initiation in the bottom skin of the wing.

This condition, if not detected and corrected, could affect the structural integrity of the aeroplane.

To address this unsafe condition, DGAC [French Civil Aviation Authority] France issued to require inspection of centre spar sealing angles adjacent to pylon rear attachment fittings of Left Hand (LH) and Right Hand (RH) wings.

Early cracks reported on an in-service aeroplane prompted Airbus to conduct additional investigations. Based on the results, DGAC France issued AD 2003-290 (later revised), which superseded DGAC France AD 91-253-128(B), to require modification of the affected aeroplanes as specified in Airbus Service Bulletin (SB) A300-57-6033 (Airbus Mod 8609), as well as post-modification repetitive inspections.

Since DGAC France AD 2003-290(B)R1 was issued, a fleet survey and updated Fatigue and Damage Tolerance analyses have been performed in order to substantiate the second A300-600 Extended Service Goal (ESG2) exercise. The results of these analyses have shown that the inspection threshold and interval must be reduced to allow timely detection of cracks on the sealing angles of the centre spar, adjacent to rib 8.

For the reasons described above, this new [EASA] AD retains the requirements of DGAC France AD 2003-290(B) R1, which is superseded, and requires the accomplishment instructions at the new thresholds and intervals given by Revision 07 of Airbus Service Bulletin (SB) A300-57-6027.

The required actions also include repetitive high frequency eddy current (HFEC) inspections of the center spar sealing angles adjacent to the pylon re attachment fitting for cracks, modifying the airplane by cold expansion of the center spar sealing angles outboard of rib 8 if necessary, replacing both of the forward and aft sealing angles with new sealing angles and cold expanding the attachment holes if necessary, and doing post-repair repetitive inspections and corrective actions if necessary. You may examine the

MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0282.

Depending on the airplane configuration and airplane utilization, the compliance times are as follows:

- For normal range operations, the initial compliance time for the new actions ranges between 9,000 flight cycles and 19,500 flight cycles, or within 18,600 flight hours and 40,300 flight hours. The grace period for the action is within 1,700 flight cycles, or within 3,500 flight hours.

- For short range operations, the initial compliance time for the new actions ranges between 10,600 flight cycles and 23,000 flight cycles, or within 15,900 flight hours and 34,500 flight hours. The grace period for the action is within 2,000 flight cycles, or within 3,000 flight hours.

- For normal range operations, the repetitive interval for the inspection is 5,100 flight cycles or 10,500 flight hours.

- For short-range operations, the repetitive interval for the inspection is 6,000 flight cycles or 9,000 flight hours.

#### **Relevant Service Information**

Airbus has issued Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, and Service Bulletin A300-57-6033, Revision 02, dated September 19, 2011. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

## **FAA's Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

In many FAA transport ADs, when the service information specifies to contact the manufacturer for further instructions if certain discrepancies are found, we typically include in the AD a requirement to accomplish the action using a method approved by either the FAA or the State of Design Authority (or its delegated agent).

We have recently been notified that certain laws in other countries do not allow such delegation of authority, but some countries do recognize design approval organizations. In addition, we have become aware that some U.S. operators have used repair instructions that were previously approved by a State of Design Authority or a Design Approval Holder (DAH) as a method of compliance with this provision in FAA ADs. Frequently, in these cases, the previously approved repair instructions come from the airplane structural repair manual or the DAH repair approval statements that were not specifically developed to address the unsafe condition corrected by the AD. Using repair instructions that were not specifically approved for a particular AD creates the potential for doing repairs that were not developed to address the unsafe condition identified by the

MCAI AD, the FAA AD, or the applicable service information, which could result in the unsafe condition not being fully corrected.

To prevent the use of repairs that were not specifically developed to correct the unsafe condition, this proposed AD would require that the repair approval specifically refer to the FAA AD. This change is intended to clarify the method of compliance and to provide operators with better visibility of repairs that are specifically developed and approved to correct the unsafe condition. In addition, we use the phrase “its delegated agent, or by the DAH with State of Design Authority design organization approval, as applicable” in this proposed AD to refer to an DAH authorized to approve required repairs for this proposed AD.

### **Costs of Compliance**

Based on the service information, we estimate that this proposed AD would affect about 21 products of U.S. registry.

The actions that are required by AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006), and retained in this proposed AD take about 25 work-hours per product, at an average labor rate of \$85 per work hour. Required parts cost about \$1,249 per product. Based on these figures, the estimated cost of the currently required actions is \$2,374 per product.

We estimate that it would take about 8 work-hours per product to comply with the new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$14,280, or \$680 per product.



In addition, we estimate that any necessary follow-on actions would take about 42 work-hours and require parts costing \$10,000, for a cost of \$13,570 per product. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

**PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006); (corrected April 21, 2006 (71 FR 20530)), and adding the following new AD:

**Airbus:** Docket No. FAA-2014-0282; Directorate Identifier 2012-NM-168-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD supersedes AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006); (corrected April 21, 2006 (71 FR 20530)).

**(c) Applicability**

This AD applies to Airbus Model A300 B4-601, B4-603, B4-620, and B4-622, B4-605R and B4-622R airplanes, Model A300 F4-605R and F4-622R airplanes, and Model A300 C4-605R Variant F airplanes, certificated in any category, except those on which Airbus Modification 8608 is incorporated.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by reports that fatigue and damage tolerance analyses shows that the inspection threshold and interval must be reduced to allow timely detection of cracks on the sealing angles of the center spar, adjacent to rib 8. We are issuing this AD to prevent crack formation in the sealing angles; such cracks could rupture the sealing angle and lead to subsequent crack formation in the bottom skin of the wing, and resultant reduced structural integrity of the center spar section of the wing.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Retained Modification**

This paragraph restates the requirements of paragraph (f) of AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006). For A300 B4-600, B4-600R, and F4-600R series airplanes, and Model C4-605R variant F airplanes (collectively called A300-600 series airplanes); except those on which Airbus Modification 8608 or 8609 is incorporated: Within 500 flight cycles after April 17, 2006 (the effective date of AD 2006-07-07, Amendment 39-14534, modify nine bolt holes in the vertical flange of the center spar sealing angles outboard of rib 8, adjacent to the pylon attachment fitting, and do any applicable related investigative and corrective actions before further flight; by doing all the actions in and in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6033, Revision 01, dated December 18, 2003. If any crack is found during the related investigative action: Before further flight, repair in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6027, Revision 06, dated March 2, 2005.

**(h) Retained No Reporting Required**

This paragraph restates the reporting information of paragraph (g) of AD 2006-07-07, Amendment 39-14534 (71 FR 16206, March 21, 2006). Although Airbus Service Bulletin A300-57-6033, Revision 01, dated December 18, 2003, specifies to report crack findings to the manufacturer, this AD does not include that requirement.

**(i) New Requirement of this AD: Inspection and Modification**

For all airplanes, at the applicable time specified in paragraph (j) of this AD, accomplish the actions specified in paragraphs (i)(1) and (i)(2) of this AD concurrently. Repeat the inspection required by paragraph (i)(1) of this AD thereafter at intervals not to exceed the values as specified in the “Repeat Interval” column in Table 1 or Table 2 of Airbus A300-57-6027, Revision 07, dated June 6, 2011, as applicable to the airplane configuration and utilization; except as required by paragraph (m)(3) of this AD.

(1) Do a high frequency eddy current (HFEC) inspection of the center spar sealing angles adjacent to the pylon re-attachment fitting for cracks, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011.

(2) Unless already done: Modify the airplane by cold expansion of the center spar sealing angles outboard of Rib 8, adjacent to the pylon rear attachment fitting, including doing the eddy current inspections for cracks of the bolt holes, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6033, Revision 02, dated September 19, 2011.

**(j) Initial Compliance Times**

At the later of the times specified in paragraph (j)(1) and (j)(2) of this AD, except as required by paragraph (m) of this AD, do the actions required by paragraph (i) of this AD.

(1) At the applicable compliance time specified in Table 1 and Table 2 in the “Threshold Inspection,” column in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011.

(2) At the applicable compliance time specified in Table 1 and Table 2 in the “Grace Period,” column in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011.

**(k) New Requirement of this AD: Corrective Action**

If, during any inspection required by paragraph (i)(1) or (i)(2) of this AD, any crack is found: Before further flight, repair the crack by replacing both of the forward and aft sealing angles with new sealing angles and cold expansion of the attachment holes, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011. The corrective actions, as required by this paragraph, does not constitute as a terminating action for the repetitive inspections in paragraph (i)(1) of this AD.

**(l) New Requirement of this AD: Post Modification Actions**

After modification of the airplane, as specified in Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011: Within 3 months after the effective date of this AD, or before further flight after doing the modification, whichever occurs later, contact the FAA, ANM-116, Transport Airplane Directorate, or EASA (or its delegated agent, or the Design Approval Holder (DAH) with EASA design organization approval, as applicable) for repetitive post-repair inspections and corrective actions, and do those actions.

**(m) Exceptions to the Service Bulletin**

(1) Where Note 01 and Note 02 of paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, specifies to contact Airbus for inspection requirements, this AD requires, at the applicable compliance time specified in Table 1 and Table 2 in the “Grace Period,” column in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, to repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or European Aviation Safety Agency (EASA) (or its delegated agent, or the Design Approval Holder (DAH) with EASA design organization approval, as applicable). For a repair method to be approved, the repair approval must specifically refer to this AD.

(2) Where the Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011 specifies a compliance time in Table 1 and Table 2 in the “Grace Period,” column in paragraph 1.E., “Compliance,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(3) Where Table 1 and Table 2 in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, specifies a choice between flight cycle or flight hours, this AD requires a compliance time within the specified flight cycles or flight hours, whichever occurs first.

(4) Where Table 1 and Table 2 in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, specifies pre-modification 8609, this AD requires compliance within the compliance time specified

in the “Threshold Inspection” column. Those compliance times are flight cycles or flight hours since new.

(5) Where Table 1 and Table 2 in paragraph 1.E., “Compliance,” of Airbus Service Bulletin A300-57-6027, Revision 07, dated June 6, 2011, specifies any post modification or repair, this AD requires compliance within the compliance time specified in the “Threshold Inspection” column. Those compliance times are flight cycles or flight hours since accomplishing the modification or repair.

**(n) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (i)(1) of this AD, if those actions were performed before the effective date of this AD using the service information in paragraph (n)(i) through (n)(iii) of this AD.

(i) Airbus Service Bulletin A300-57-6027, Revision 04, dated August 4, 1999.

(ii) Airbus Service Bulletin A300-57-6027, Revision 05, dated November 21, 2002.

(iii) Airbus Service Bulletin A300-57-6027, Revision 06, dated March 2, 2005.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to



ATTN: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-2125; fax (425) 227-1149. Information may be emailed to:

[9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD. AMOCs approved previously for AD 98-18-02, Amendment 39-10718 (63 FR 45689, August 27, 1998), are approved as AMOCs for the corresponding provisions in paragraph (g) of this AD.

(3) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2012-0194, dated September 25, 2012, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0282.

(2) For service information identified in this AD, contact Airbus SAS – EAW (Airworthiness Office), 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email

[account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on May 2, 2014.

Jeffrey E. Duvén,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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